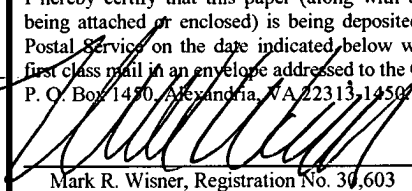
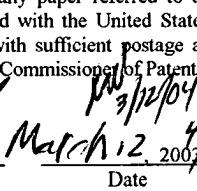


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT EXAMINING OPERATION

In re Application of: Ilyas Juzer NAJMUDDIN § Atty. Docket No.: 94.0048  
(GEOA,157-US)  
Serial No.: 10/081,090 §  
Filed: February 22, 2002 § Group Art Unit: 2862  
For: **METHOD AND APPARATUS** §  
**FOR DETECTING** §  
**FRACTURES USING** §  
**FREQUENCY DATA DERIVED** §  
**FROM SEISMIC DATA** §

COMMISSIONER OF PATENTS  
P. O. BOX 1450  
ALEXANDRIA, VA 22313-1450

<b>CERTIFICATE OF MAILING (37 CFR 1.8a)</b>	
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date indicated below with sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents, P. O. Box 1450, Alexandria, VA 22313-1450.	
 Mark R. Wisner, Registration No. 30,603	 Date <u>March 12, 2004</u>

**CERTIFICATE UNDER 37 C.F.R. 3.73(B)**

Dear Sir:

Schlumberger Technology Corporation, a Texas corporation, certifies that it is the Assignee of the entire right, title and interest in the patent/patent application identified above by virtue of:

- ☒ A. An Assignment from the inventors of the patent application identified above.
- ☐ The Assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_; or
- ☒ A copy thereof is attached.
- ☐ B. A chain of title from the inventor(s) of the patent/patent application identified above to the current assignee as shown below:
1. From: \_\_\_\_\_  
To: \_\_\_\_\_
- ☐ The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_; or
- ☐ A copy thereof is attached.

2. From: \_\_\_\_\_  
To: \_\_\_\_\_

☐ The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_; or

☐ A copy thereof is attached.

3. From: \_\_\_\_\_  
To: \_\_\_\_\_

☐ The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_; or

☐ A copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent/patent application identified above and, to the best of undersigned's knowledge and belief, title is in the Assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the Assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereof.

Name of Corporate Officer Signing: Dale Gaudin

Officer's Title: Assistant Secretary

Signature: 

Date: Sept 18, 2003

COPY

## ASSIGNMENT

WHEREAS, I, **ILYAS JUZER NAJMUDDIN**, hereinafter referred to as the "Inventor", citizen of India, whose post office address is **17511 Coventry Squire, Houston, Texas 77084** has invented certain new and useful improvements in:

### **METHOD AND APPARATUS FOR DETECTING FRACTURES USING FREQUENCY DATA DERIVED FROM SEISMIC DATA**

as described and set forth in an application for Letters Patent of the United States of America, executed by me on the 20 day of February, 2002 (Docket No: 94.0048).

AND WHEREAS, SCHLUMBERGER TECHNOLOGY CORPORATION, hereinafter referred to as the "said COMPANY", a corporation duly organized, incorporated and existing under the laws of the State of Texas and having a place of business at 5599 San Felipe, Suite 1700, Houston, Texas 77056-2722 is desirous of acquiring or confirming its acquisition of the entire right, title and interest in and to said invention, inventions or improvements, and in and to said application, and in and to any and all patents, both of the United States and of all foreign countries, that may be obtained therefore;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN, that I the Inventor, for good and valuable considerations, the receipt and sufficiency of which hereby acknowledge, have sold, assigned, transferred and conveyed, and by this assignment do sell, assign, transfer and convey, unto said COMPANY, its successors and assigns, the entire right, title and interest throughout the world, in and to my invention, inventions or improvements described or set forth in said application, in any form or embodiment thereof, and in and to said application, and in and to any applications filed in any foreign country based thereon, including the right to file foreign applications under the provisions of any convention or treaty; and in and to any confirmation, divisional, continuation, continuation-in-part, or substitute application which may be filed on said invention, inventions or improvements in the United States or in any foreign country; and in and to any and all patents, certificates, utility models, reissues, extensions, additions or confirmations thereof which may be granted in the United States or in any foreign country upon said invention, inventions or improvements,

TO HAVE AND TO HOLD the same to the full end of the term or terms for which any and all such United States and foreign patents and grants may be issued on said invention, inventions or improvements.

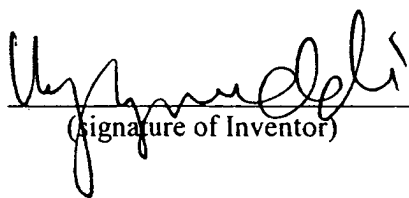
AND I do hereby authorize and request the issuing authority to issue any and all of said United States and foreign patents on said application or applications to said COMPANY, its successors and assigns, as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said COMPANY, its successors and assigns.

AND I do hereby covenant and warrant that I have full right to convey the entire right, title and interest herein assigned free and clear of all licenses, encumbrances and liens whatsoever, and that I have not executed and will not execute any instruments in conflict herewith.

AND I, for the conditions aforesaid, do hereby covenant and agree to and with the said COMPANY, its successors and assigns, that I, my executors, administrators, or other personal representatives, shall and will do all lawful acts and things, make all rightful oaths, and make, execute and deliver any and all other instruments in writing, and any and all further applications, papers, powers, affidavits, assignments, disclaimers and other documents, which in the opinion of counsel for said COMPANY, its successors and assigns, may be required or necessary in this or in any foreign country more effectually to secure to and vest in said COMPANY, its successors and assigns, the entire right, title and interest in and to said invention, inventions or improvements, application or applications, patents, rights, titles, benefits, privileges, and advantages hereby sold, assigned, confirmed, transferred and conveyed.

IN WITNESS WHEREOF, I, **ILYAS JUZER NAJMUDDIN** have hereunto set my hand and seal this

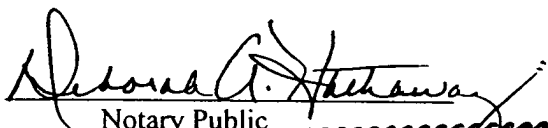
20 day of February, 2002.

  
(signature of Inventor)

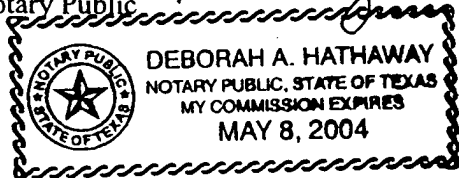
State of Texas )

County of Harris )

BEFORE ME this 20<sup>th</sup> day of February 2002, personally appeared **ILYAS JUZER NAJMUDDIN** to me known to be the person who is described in and who executed the foregoing assignment instrument and acknowledged to me that he executed the same of his own free will for the purpose therein expressed.

  
Notary Public

SEAL



DEBORAH A. HATHAWAY  
NOTARY PUBLIC, STATE OF TEXAS  
MY COMMISSION EXPIRES  
MAY 8, 2004